

AMENDMENTS TO THE CLAIMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please CANCEL claim 5 without prejudice and AMEND claims 1, 7-10, 12, 13, 18, 19, 21, 24, 25, and 28 in accordance with the following:

1. (Currently Amended) A temperature unit to control a temperature of a device under test, comprising:

a heater block disposed opposite the device under test and which generates heat receivable by the device under test across a gap; and

an actuator which moves the heater block so as to adjust the gap while the heater block generates the heat so as to vary an amount of the heat received at the device under test so as to adjust the temperature of the device under test; and

a housing which houses the actuator and the heater block and which includes an interface to hold the device under test, wherein the housing is connectable to a handler for use in automated testing equipment.

2. (Original) The temperature unit of claim 1, wherein:

the actuator increases the gap so as to increase a thermal resistance between the heater block and the device under test so as to decrease the amount of the heat received at the device under test, and

the actuator decreases the gap so as to decrease the thermal resistance between the heater block and the device under test so as to increase the amount of the heat received at the device under test.

3. (Original) The temperature unit of claim 2, further comprising a medium disposed in the gap and which has the thermal resistance.

4. (Original) The temperature unit of claim 1, wherein the actuator further comprises a screw turnable by the actuator to adjust the gap between the heater block and the device under test.

5. (Cancelled)

6. (Original) The temperature unit of claim 1, further comprising a controller which controls the actuator and the heater block, wherein the controller includes information regarding heater block and actuator settings used to achieve a variety of temperatures of the device under test.

7. (Currently Amended) A temperature unit to control a temperature of a device under test using a fluid, comprising:

a block disposed opposite the device under test and which defines a gap-passageway therebetween and through which the fluid passes over the device under test at a gap flow rate; and

an actuator which moves the block so as to adjust the gap-passageway and vary the gap flow rate of the fluid flowing over the device under test so as to adjust the temperature of the device under test.

8. (Currently Amended) The temperature unit of claim 7, wherein the block comprises a heater block which generates heat receivable by the device under test across the gap-passageway.

9. (Currently Amended) The temperature unit of claim 7, further comprising:
~~a passageway through which fluid flows through the temperature unit; and~~
a valve which controls an initial flow rate of the fluid introduced into the passageway,
wherein the actuator adjusts the gap-passageway so as to vary the gap flow rate from the initial flow rate.

10. (Currently Amended) The temperature unit of claim 7, further comprising:
~~a passageway through which fluid flows through the temperature unit; and~~
a pump which controls an initial flow rate of the fluid introduced into the passageway,
wherein the actuator adjusts the gap passageway so as to vary the gap flow rate from
the initial flow rate.

11. (Original) The temperature unit of claim 10, further comprising a valve through
which the fluid passes between the passageway and the pump.

12. (Currently Amended) The temperature unit of claim 11, wherein the valve is closed
in order to create a suction force at the gap passageway using the pump sufficient to hold a
weight of the device under test.

13. (Currently Amended) The temperature unit of claim 12, wherein the block
comprises a heater block which generates heat receivable by the device under test across the
gap passageway.

14. (Original) The temperature unit of claim 13, wherein, while the suction force is
created, the heater block generates the heat so as to adjust the temperature of the device under
test.

15. (Original) The temperature unit of claim 7, further comprising a controller which
controls the actuator, wherein the controller includes information regarding actuator settings
used to adjust the gap flow rate to achieve a variety of temperatures of the device under test.

16. (Original) The temperature unit of claim 8, further comprising a controller which
controls the actuator and the heater block, wherein the controller includes information regarding
heater block and actuator settings used to achieve a variety of temperatures of the device under
test.

17. (Original) The temperature unit of claim 11, further comprising a controller which controls the actuator, the pump, the heater block, and the valve, wherein the controller includes information regarding actuator, pump, heater block, and valve settings used to achieve a variety of temperatures of the device under test.

18. (Currently Amended) The temperature unit of claim 17, wherein the controller further includes information regarding actuator, pump, heater block, and valve settings used to create a suction force at the gap-passageway sufficient to hold a weight of the device under test.

19. (Currently Amended) The temperature unit of claim 7, wherein the block further comprises an extended portion which extends from the block into the passageway to define a contour of the gap-passageway opposite the device under test.

20. (Original) The temperature unit of claim 7, wherein the extended portion is detachable from the block.

21. (Currently Amended) A computer readable medium encoded with processing instructions for implementing a method of controlling a temperature of a device under test performed by a computer, the method comprising:

determining actuator and heater block settings required to achieve a required temperature for the device under test;

adjusting a heater block to generate heat according to the determined heater block setting; and

adjusting the actuator to move the heater block to a distance-define a passageway above the device under test according to the determined actuator setting, through which a fluid passes over the device under test.

22. (Original) The computer readable medium of claim 21, the method further comprising detecting a present temperature of the device under test and adjusting one of the heater block and the actuator if the present temperature is not the required temperature.

23. (Original) The computer readable medium of claim 21, wherein the determining the actuator and heater block settings comprises detecting a present temperature of the device under test and determining the heater block and the actuator settings if the present temperature is not the required temperature.

24. (Currently Amended) A computer readable medium encoded with processing instructions for implementing a method of controlling a temperature of a device under test within a temperature unit as performed by a computer, the method comprising:

for an initial flow rate of fluid introduced into the temperature unit, determining an actuator setting required to achieve a required temperature for the device under test; and
adjusting the actuator to move a block to ~~a gap~~ form a passageway above the device under test according to the determined actuator setting so as to vary the initial flow rate to achieve a gap flow rate of the fluid flowing across the device under test which achieves the required temperature.

25. (Currently Amended) The computer readable medium of claim 24, wherein the block comprises a heater block which generates heat receivable by the device under test across the ~~gap~~ passageway, the method further comprising:

determining a heater block setting required to achieve the temperature required for the device under test in conjunction with the determined actuator setting; and
adjusting the heater block to generate the heat according to the determined heater block setting.

26. (Original) The computer readable medium of claim 25, the method further comprising detecting a present temperature of the device under test and adjusting one of the heater block and the actuator if the present temperature is not the required temperature.

27. (Original) The computer readable medium of claim 25, wherein the determining the actuator and heater block settings comprises detecting a present temperature of the device under test and determining the heater block and the actuator settings if the present temperature is not the required temperature.

28. (Currently Amended) The computer readable medium of claim 24, the method further comprising creating a suction force within the ~~gap~~ passageway by adjusting a valve through which the fluid is introduced into the temperature unit and controlling a pump which circulates the fluid through the temperature unit.